

AMENDMENTS TO THE CLAIMS

Claim 1 (Cancelled)

2. (Currently Amended) A method of manufacturing a porous starch-based pigment or filler product comprising a stable foam, said method comprising:

a) dissolving air, or other gases, at a low temperature into a water gel of starch, after which the raising of the temperature generates a gas/liquid phase separation, and the product is crosslinked to achieve said stable foam,

b) mixing air ~~is-mixed~~ into the starch gel to foam the gel and the foamed gel is cooled rapidly to produce said stable foam;

c) forming a micro bubble emulsion ~~is-formed~~ of the aqueous solutions of the starches and the organic solvents under thorough mixing and in the presence of surface-active agents and crosslinking reagents, or

d) contacting a solid starch derivative ~~is-contacted~~ with high-pressure carbon dioxide in conditions where the high-pressure carbon dioxide penetrates into the starch derivative, which swells because of the effect of the carbon dioxide, after which the pressure on the starch derivative, which was swelled in the carbon dioxide, is lowered rapidly thereby producing a porous material following decompression;

wherein said stable foam contains foam bubbles and the average size of said bubbles is less than approximately 10 micrometres.

3. (Previously Presented) The method according to Claim 2, wherein in step c), the starch derivative is dissolved into water to a solution, the percentage of which is approximately 1-30 % by weight.

4. (Previously Presented) The method according to Claim 3, wherein in order to increase the stability, 0.01-10 % per weight of a crosslinking agent, is added into the starch-bearing solution.

5. (Previously Presented) The method according to Claim 2, wherein in step d), a solid starch ester or starch ether, with a degree of substitution in the range of 0.5-3.0 mol/mol is contacted with a material which comprises mainly carbon dioxide at an elevated pressure and temperature, after which the pressure of the material which was contacting the cellulose ester or cellulose ether and which comprises mainly carbon dioxide is reduced rapidly so that a microporous starch ester or starch ether is achieved after the reduction of the pressure.

6. (Previously Presented) The method according to Claim 5, wherein a starch ester or a starch ether is contacted with a material which comprises mainly carbon dioxide at a pressure of 100-310 bar and at a temperature of 50-100 ° C.

7. (Currently Amended) The method according to Claim ~~5 or 6~~, 5, wherein a starch ester or a starch ether is contacted with carbon dioxide to which small molecular alcohol or ester has been added.

8. (Previously Presented) The method according to claim 5, wherein the carbon dioxide comprises 1-15 % per weight small molecular alcohol or ester.

9. (Previously Presented) The method according to claim 5, wherein the pressure on the material contacting the starch ester or the starch ether and which comprises mainly carbon dioxide is reduced to an essentially lower pressure within 0.08-7 seconds.

10. (Previously Presented) The method according to claim 5, wherein the starch-based material comprises starch ether or starch ester.

11. (Previously Presented) The method according to Claim 10, wherein in order to modify the properties of the starch gels/starch foams, an initial material is used which comprises hydroxyalkyl starch or starch alkenyl succinate.

Claim 12 (Cancelled)

13. (Previously Presented) The method according to Claim 3, wherein the percentage of the starch derivative is 10-15 % per weight.

14. (Previously Presented) The method according to Claim 4, wherein approximately 0.1-5 % per weight of a crosslinking agent is added into the starch-bearing solution.

15. (Previously Presented) The method according to Claim 4 or 14, wherein glyoxal is the crosslinking agent.

16. (Previously Presented) The method according to claim 10, wherein the starch-based material comprises hydroxyalkyl starch.

17. (Previously Presented) The method according to claim 10, wherein the starch-based material comprises starch alkenyl succinate.